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## **Mecklenburg County Air Quality**

# PERMIT APPLICATION REVIEW SUMMARY Title V

Section A: FACILITY INFO	RMATION	Existing	x N	lew
Company Name (Legal Corporate Name)	Industrial Container Service	ces – NC, LLC		
Site Name (If Different From Above)	Industrial Container Services – NC, LLC (Charlotte)			
Site Address (Street, City, Zip Code)	2900 West Trade Street, Charlotte, NC 28208			
<b>General Description of Business</b>	A drum reconditioning facility			
Facility AQ Classification(s)	Title V Si	ite Consistent w/ Zor	ning? (Y/N)	Y

Section B: APPLICATION	INFORMA <sup>*</sup>	TION	Modified	X	New
Date of Application	5/18/2020	Application T	racking Num	ber	2020-AQ-52361
Date Complete Application Received	6/4/2020	AQC Date/Pu Opens	blic Commen	ıt	Newspaper & Website Notice, also at 1/25/2021 AQC
Date Complete Application Received	0/4/2020	AQC Agenda	Type: Notice.		at 1/23/2021 AQC
Confidentiality Requested?	No	Alternate, FYI	• •	,	Alternate
Application Results: <u>Brief</u> description of actions requested by application and/or taken by MCAQ.		5-year renewal	of Title V Per	rmit	
Permit Issued as a Result of Application – Number:		21-01V-225			
Permit Voided as a Result of Application	16-01V-225				

Section C: REGULATORY INFORMATION					
MCAPCO Regulations Applicable: List only specific conditions and/or regulations cited in permit issued. Indicate subpart for regulations 2.0524, 2.1110 & 2.1111.	2.0515- Particulates from Miscellaneous Industrial Processes     2.0516- Sulfur Dioxide Emissions from Combustion Sources     2.0541 - Control of Emissions from Abrasive Blasting     2.0958- Work Practices For Sources of Volatile Compounds     2.0967- Miscellaneous Metal and Plastic Parts Coating     2.1111- Subpart MMMM – National Emission Standards for     Hazardous Air Pollutants for Surface Coating of     Miscellaneous Metal Parts and Products     2.0535- Excess Emissions Reporting and Malfunctions				
Miscellaneous Applicability (Y/N)	N   112r   N   Strat. Ozone   Y   CAM (40CFR64)				
HAPs >10tpy, Potential Emissions: facilitywide	glycol ethers				
TAPs Modeled: this application	None				

Section D: FACILITY- WIDE EMISSIONS INFORMATION						
	Calculated Actual Emissions With Control (tons/year)					
AIR POLLUTANTS				% Change +/(-)		
Particulate Matter < 10 microns - PM-10	2.8	0	2.8	0	0	
Particulate Matter < 2.5 microns – PM2.5	2.8	0	2.8	0	0	
Sulfur Dioxide - SO <sub>2</sub>	0.01	0	0.01	0	0	
Nitrogen Oxides - NO <sub>x</sub>	1.6	0	1.6	0	0	
Carbon Monoxide - CO	1.3	0	1.3	0	0	
Volatile Organic Compounds - VOC	19.1	0	19.1	0	0	
All Hazardous Air Pollutants - HAPs	1.5	0	1.5	0	0	

AQ Specialist Signature:	Evan Shaw	Date Completed:	12/21/2020
Supervisor Signature:	Jason Rayfield	Date Approved:	01/12/2021

### **SECTION A DETAILS**

### **FACILITY INFORMATION**

Detailed discussion of any items in Section A. At a minimum provide the following information:

1. Basis for permit: reason facility/source is "major" under Title V and submitting a Title V application

2. description of business operation (more detailed than summary page)

### **Basis for Permit:**

- Major source for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and volatile organic compounds (VOC) (>100 tpy PTE)
- Major source for hazardous air pollutants HAPs [>25 tpy PTE combined HAPs and >10 tpy PTE individual HAP (glycol ethers)]
- Minor source for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>) (<100 tpy PTE)
- This application is for the 5-year renewal of the Title V permit
- ICS-Charlotte was issued an initial Title V permit on September 25, 2001

### **Business Operation:**

ICS-Charlotte operates a metal container reconditioning facility located at 2900 West Trade Street in Charlotte, North Carolina and includes the following processes:

- One (1) drum reclamation furnace with integral afterburner for cleaning drum interiors;
- Four (4) shot blasters controlled by two baghouses for removal of paint from drum exteriors; and.
- Three (3) miscellaneous metal parts coating lines [one (1) exterior drum coating booth and bake oven, one (1) interior drum coating booth and bake oven, and one (1) drum lid coating booth] and one (1) drum ring dip coating station.

A detailed description of each process is described as follows:

### **Drum Furnace Operations**

After unloading and sorting, drums, lids and rings are processed through the Drum Reclamation Furnace. This is the first stage of their drum reconditioning process. The drums are processed at a temperature sufficient to completely dry and loosen exterior and interior paint, as well as any drum residue, for ease of removal by the shot blast system.

#### Shot Blasting Operations

After drums, plugs, lids and rings are processed in the Drum Reclamation Furnace, they are shot-blasted to remove residue and paint. There are four separate shot blast units with exhaust routed to two dust collectors.

### **Metal Working Operations**

After drums, plugs, lids and rings are shot-blasted, they undergo several steps to ensure proper condition as a shipping container. Drums go through an expander to remove dents and a chime sealer. Lids go through a straightener. These processes do not involve cutting, sanding or abrading metal, nor do they involve any chemical usage. No air emissions are generated by these processes. To maintain proper operation of metal working equipment, various lubricating oils containing organic compounds may be used.

### <u>Surface Coating Operations</u>

After metal-working processes are complete, drums, lids and rings are painted according to customer specification. Surface Coating Operations include application of both interior linings and exterior coatings to drums and lids. Three separate paint booths are used, along with two bake ovens fired by natural gas. There is also a ring dip tank for coating drum rings where each ring is dipped into an open container filled with coating. After coating, the rings are placed on racks and air dried.

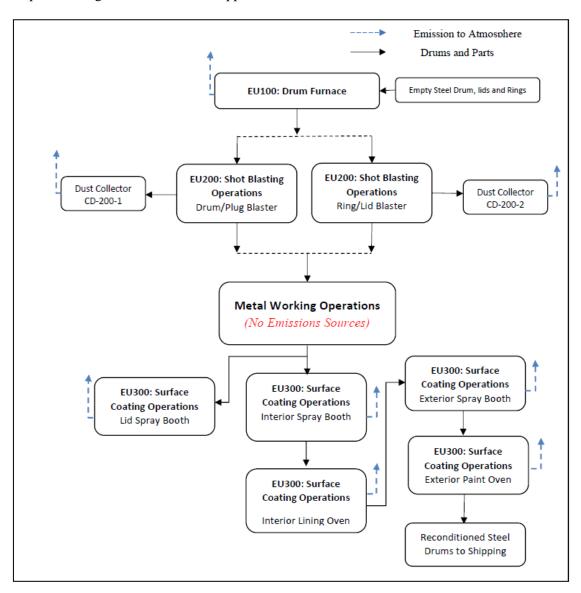
### Miscellaneous Operations

There are various activities including cleanup and miscellaneous cleaning performed both inside and outside of the spray booths. These activities may result in evaporative fugitive emissions of VOC and HAPs.

### **Insignificant Operations**

Activities exempt because of category, or size and production, which include the diesel storage tank, drum expander, chime sealer, lid straightener, etc.

A process diagram included in the application is as follows:



# SECTION B DETAILS

### **APPLICATION INFORMATION**

[List all emission sources (permitted and exempt) reviewed as a result of this application, their associated control devices and pollutants. Provide

a detailed discussion of any other items in Section B at bottom under "Application Notes"]					- 
EMISSION SOURCE ID	1. Type	SSION SOURCE ESCRIPTION  c, manufacturer, capacity ol device with ID (if any)	POLLUTANTS EMITTED	MISCELLANEOUS NOTES	Previous Permit No. (If applicable)
EU-100	Drum Furnace Operation	One 18 million Btu/hr drum reclamation furnace (primary chamber) fueled by natural gas or No. 2 fuel oil with a modified afterburner (secondary chamber)	PM, PM <sub>10</sub> & PM <sub>2.5</sub> , NOx, SO <sub>2</sub> , CO, VOC, HAP	No changes to equipment.	16-01V-225
FU-200	Shot Blasting	Drum Shot Blast Unit Plug Shot Blast Unit  Controlled by CD- 200-1 Baghouse (Torit)	- PM, PM <sub>10</sub> &	No changes to	16-01V-225
EU-200 Blasting Operation	Ring Shot Blast Unit Lid Shot Blast Unit  Controlled by CD- 200-2 Baghouse (Wheelabrator)	PM <sub>2.5</sub>	equipment.	10-01 V-223	
EU-300	Surface Coating Operation	Interior lining drum spray booth  Interior lining cure oven (natural gas)  Exterior drum coating spray booth  Exterior coating cure oven (natural gas)  Interior/Exterior lid coating spray booth  Ring Dip tank	PM, PM <sub>10</sub> & PM <sub>2.5</sub> , NOx, SO <sub>2</sub> , CO, VOC, HAPs	No changes to equipment.	16-01V-225
EU-400	Facility- wide Fugitives	Spray contact cement application  Booth coat application  Odor masking compound application  Miscellaneous cleaning operations	VOC, HAPs	Remove spray contact cement application, booth coat application, and odor masking compounds application.	16-01V-225
Facility-wide Activ		Maintenance lubricating oil &	VOC	Remove leak tester – sodium nitrate usage	16-01V-225

grease usage	
Drum expander, chim sealer & lid straightener	e
3,000 gallon diesel fuel tank	
<del>Leak tester – sodium</del> <del>nitrate usage</del>	
Air leak tester	

Note: In accordance with MCAPCO 1.5508(x), <u>regulated</u> fugitive emissions (from any of the 27 categories) as defined in 40 CFR 70.2 or for HAP emission purposes, shall be included in the same manner as stack emissions. All regulated fugitive emission sources may be grouped and listed as one (1) emission source under Emission Source ID No.

### **APPLICATION NOTES**

There are no changes to major source pollutant applicability, emissions, permitted equipment, or compliance assurance monitoring with this Title V permit renewal application.

The facility will be classified as a major source for  $PM_{10}$ ,  $PM_{2.5}$ , VOC, and HAPs; and as a minor source for  $NO_X$ , CO, and  $SO_2$ . Because there is no change in emissions, a TAP review is not triggered.

### **Administrative changes made to Permit**

### 1. Add HAPs to coating notification requirement

Add a coating notification requirement regarding the HAP standard to which the facility is subject (MACT Subpart MMMM) in addition to the coating notification already listed in the permit for VOC:

POLLUTANT/ PARAMETER	NOTIFICATION REQUIREMENT	SUBMITTAL DATES
VOCs regulated under MCAPCO 2.0900	For each new coating or solvent, calculations that demonstrate compliance with the applicable VOC standard (pounds VOC/gallon coating)	20 days prior to
HAPs regulated under MCAPCO 2.1111 (MACT Subpart MMMM)	For each new coating or solvent, calculations that demonstrate compliance with the applicable HAP standard (pounds HAP/gallon coating solids)	initial use

### 2. Equipment removal from permit

Remove the below equipment from the emission source table in accordance with written request from the facility. The spray contact cement application process, booth coat application process, odor masking compound operation, and sodium nitrate usage in leak testing has all been removed from the facility, and the facility has no intention of replacing the equipment.

E W	Spray contact cement application
Fugitives EU-400	Booth coat application
	Odor masking compound application

Insignificant Activities ES-IA	Leak tester – sodium nitrate usage
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### Regulatory Review for MACT, RACT, Toxics Avoidance, and CAM

**1. 40** CFR **63** Subpart **4M** – Surface Coating of Miscellaneous Metal Parts and Products *§*63.3882 What parts of my plant does this subpart cover?

The coating operation, storage containers and mixing vessels for coatings, equipment for conveying coatings.

§63.3890 What emission limits must I meet?

(b)(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

§63.3891 What are my options for meeting the emission limits?

- (a) *Compliant material option*. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in §63.3890...
- (b) Emission rate without add-on controls option. Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis...

The facility complies via the "Emission rate without add-on controls" option. Rolling 12-month emission rates are used on a monthly basis to demonstrate compliance with a HAP limitation of 2.6 lbs OHAP per gallon coating solids. The facility also demonstrates compliance with the compliant material option with all of their current coatings, but should an individual coating be greater than the 2.6 lb OHAP/gal coating solids, they could still show compliance with their rolling 12-month emission rates via the emission rate without add-on controls option.

§63.3920 What reports must I submit?

(a) Semiannual compliance reports. (1)(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

### 2. MCAPCO 2.0967 - Miscellaneous Metal and Plastic Parts Coatings

Coating Limits:

For interior coating:

4.2 lb VOC/gal coating; and,

For exterior coating:

3.5 lb VOC/gal coating

The VOC content for interior and exterior coatings is listed in the facility's materials spreadsheet included in the application. The facility is required to provide MCAQ with the calculations detailing the VOC content measured for each new coating. MCAPCO Regulation 2.0967(f) allows the use of manufacturer specifications/documentation to determine VOC content instead of Method 24.

# 3. MCAPCO 1.5104 – General Duties and Powers of the Director, with the Approval of the Board

The drum furnace operation (EU-100) is limited to the values listed below to avoid toxics. If ICS-Charlotte wishes to change any of these limits they will have to demonstrate compliance with all applicable regulations (i.e., toxics).

Industrial Container Services – NC, LLC (Charlotte) Page 7 of 12

ICS-Charlotte is limited to following operating conditions:

- An average daily limit of  $\leq 200$  drums/hr; and
- Minimum secondary chamber (afterburner) temperature of 1600°F (continuously).

The limit of  $\leq 200$  drums/hr was previously accepted by the facility to avoid toxics; it was not based on stack test data. The facility has requested emission limit increases in past renewal applications, but then ultimately withdrew the requests because the facility did not want to trigger modeling.

No request to increase daily drum limits were requested with this renewal application.

#### 4. 40 CFR 64 Compliance Assurance Monitoring

The Torit Baghouse (CD-200-1) is the only emission unit at the facility subject to the requirements of 40 CFR 64. The Torit baghouse is subject to CAM based on the following:

- 1. Source is subject to the following standard: MCAPCO Regulation 2.0541 (opacity standards);
- 2. A control device (i.e., baghouse) is used to control particulate emissions; and
- 3. The source has an uncontrolled potential of greater than 100 tpy PM (PTE PM = 272.66 tpy) based on inlet concentration from 2006 stack test. Note: due to configuration of the inlet ductwork during the 2010 test, it was not possible to meet Method 1 requirements for sampling point location. MCAQ determined that inlet sampling would not be necessary for future tests as it is not required for compliance with the facility's permit.

Although only CD-200-1 is subject to CAM, ICS-Charlotte submitted a CAM plan August 23, 2006 for both of its baghouses.

The facility will continue monitoring the pressure drop on a weekly basis as established in the 2006 CAM plan.

ICS-Charlotte will also conduct daily visual emission observations once per shift for each baghouse. Any addressing actions shall be recorded.

Note: The Wheelabrator baghouse (CD-200-2) is not subject to CAM because uncontrolled potential emissions are less than 100 tpy.

SECTION C DETAILS						
	REGULATORY INFORMATION (Identify the MCAPCO Regulations reviewed because of this application. At minimum, the regulations already listed should be reviewed and a					
		, list the standard and indicate how the source is in compliance.)				
MCAPCO REGULATION NUMBER/TITLE	EMISSION SOURCE ID No(s). SUBJECT	NOTES ON REGULATION (compliance demonstration, applicability, etc.)				
1.5500 Title V Provisions	All	The facility is classified as a major source as PM <sub>10</sub> , PM <sub>2.5</sub> , and VOC potential emissions are above the 100 tpy Title V permitting threshold and individual HAP (glycol ethers) and combined HAP potential emissions are above the 10 tpy and 25 tpy thresholds, respectively.  Only sources that are subject to PSD for another pollutant are required to address GHGs under PSD review and Title V permitting.				
1.5700 Toxic Air Pollutant Procedures	NA	The facility did not trigger a toxics review with this renewal.				

		None of the emission sources at the facility emit
2.1110 NESHAP (40 CFR 61)	NA	None of the emission sources at the facility emit any HAP that is regulated under a Part 61 NESHAP.
2.1111 NESHAP (40 CFR 63) (MACT)	EU-300	40 CFR 63, Subpart MMMM — "NESHAP for Surface Coating of Miscellaneous Metal Parts and Products"  Applicability  ICS-Charlotte is classified as a major source;  ICS-Charlotte is classified as major for HAP; and  ICS-Charlotte uses more than 250 gallons/year of coatings that contain HAPs  Compliance Date  ICS-Charlotte submitted the Initial Notification of Compliance Status for compliance on March 4, 2008.  Emission Limit  63.3890 (b)(1) states in part — "for an existing affected source, you must limit organic HAP emissions to the atmosphere fromeach existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period."  Options for Meeting Emission Limit  Compliant Material Option  Emission Rate without add-on control options ICS-Charlotte has identified this as the option in which they will use to demonstrate compliance with this regulation (compliance will need to be demonstrated on monthly basis — for a rolling 12 month period).  Emission Rate with add-on controls option  The facility submits semi-annual compliance reports to demonstrate compliance with HAP emission limit. The report tracks the rolling 12-month average.
2.0524 New Source Performance Standards	NA	40 CFR 60, Subpart SS — "Standard of Performance for Industrial Surface Coating: Large Appliances" ICS-Charlotte surface coating of metal drums and lids does not fall under the definition of large appliance parts (i.e., metal lid, door, casing, panel or other interior/ exterior metal part or accessory that is assembled to form a large appliance product) or large appliance products (i.e., metal range, oven, microwave oven, refrigerator, freezer, washer, dryer, dishwater, water heater, or trash compactor manufactured for household, commercial or recreational use) therefore ICS-Charlotte is not subject to this standard.
2.0530 Prevention of Significant Deterioration	NA	Note: Mecklenburg County is currently an attainment or maintenance area for all PSD pollutants.  The facility is classified as a minor source for PSD purposes.

2.0544 Prevention of Significant Deterioration for Greenhouse Gases  2.2100 Risk Management Program (40 CFR 68)  2.2600 Source Testing	NA NA	Based on the June 23, 2014 U.S. Supreme Court ruling, GHG emissions alone cannot trigger a PSD review. Sources already subject to PSD for other pollutant(s) are required to review GHGs under PSD. (see above)  The facility is not subject to 40 CFR 68 — "Prevention of Accidental Releases" — Section 112(r) as indicated on the A-1 form submitted in the application.  Stack testing is not required as a result of this permit action.		
		The facility is no longer be required to conduct stack testing as part of the TV renewal. See discussion in CAM section below.  The facility does not use compounds regulated.		
40 CFR 82: Stratospheric Ozone Protection	NA	under 40 CFR 82.		
40 CFR 64 Compliance Assurance Monitoring	EU-200	The facility does not use compounds regulated		
2.0515 Particulates from Miscellaneous Industrial Processes	EU-100	Particulate matter "shall not exceed the level calculated with the equation:" $E = 4.10(P)^{0.67}$ ICS has demonstrated compliance with this regulation as follows: $\begin{array}{ c c c c c c c c c c c c c c c c c c c$		

		(tons/hr) (lbs/hr) (lbs/hr)			
		EU-100 4.00 10.34 2.70			
		Note: An empty 55-gallon drum weighs approx. 40lbs. The facility is limited to 200 drums/hr therefore, the process rate would roughly be 4 tons/hr. 4 tons/hr results in an allowable emission rate of 10.34 lbs/hr. The emission rate for EU-100, 2.70 lbs/hr, was obtained from the 2006 stack test. Based on the 2006 stack test, the facility is expected to be in compliance with 2.0515.			
2.0541 Control of Emissions from Abrasive Blasting	EU-200	The facility's shot blasting operations are conducted indoors and are controlled by two baghouses. The facility is expected to comply with the requirements of MCAPCO Regulation 1.5107 – "Control and Prohibition of Visible Emissions" as specified in MCAPCO Regulation 2.0541.  Sulfur dioxide shall not exceed 2.3 lbs SO <sub>2</sub> /MMBtu			
2.0516 Sulfur Dioxide Emissions from Combustion Sources	EU-100, EU-300	input.  The cure ovens (EU-300) operate only on natural gas and the AP42 emission factor for natural gas combustion is 0.001 lbs/MMBtu, therefore will no exceed the 2.3 lbs/MMBtu standard burning natur gas. The drum furnace (EU-100) has the potential to burn #2 fuel oil. Assuming 0.5% max sulfur content, the emission factor for SO2 when burning No. 2 fuel oil is 0.51 lbs/MMBtu, which is also below the standard.			
2.0958 Work Practices for Sources of Volatile Organic Compounds	EU-300, EU-400, EU-IA	ICS-Charlotte is required to comply with the requirements as outlined in the regulation. All VOC containing materials shall be stored in containers with lids, spills shall be cleaned up as soon as possible, and solvents used in cleaning shall be stored in closed containers.  Compliance will be verified through annual air			
2.0967 Miscellaneous Metal and Plastic Parts Coatings	EU-300	quality inspections.  ICS is required to comply with the reasonably available control technology (RACT) requirements at all times. ICS-Charlotte must submit product information (prior to use) for MCAQ to determine compliance.  Coating Limits:  For interior coating:  4.2 lb VOC/gal coating; and, For exterior coating:  3.5 lb VOC/gal coating  The coating calculations to date have shown the facility to be in compliance with this regulation.  Continued compliance is expected.			
2.0535 Excess Emissions Reporting and Malfunctions	EU-200, (CD-200-1, CD-200-2)	The Shot Blast Operation with associated baghouses is subject to the regulation and ICS-Charlotte will be required to operate emission sources and control equipment concurrently. Exceedances lasting longer than four hours must be reported to MCAQ within 24 hours.			

1.5104 General Duties and Powers of the Director, with the Approval of the Board	EU-100	ICS-Charlotte is limited to the values listed below to avoid toxics. If ICS-Charlotte wishes to change any of these limits they will have to demonstrate compliance with all applicable regulations (i.e., toxics).
		<ul> <li>ICS-Charlotte is limited to following operating conditions:</li> <li>An average daily limit of ≤ 200 drums/hr; and</li> <li>Minimum secondary chamber (afterburner) temperature of 1600°F (continuously).</li> </ul>

SECTION D DETAILS					
EMISSION INFORMATION					
CALCULATION METHO (List all that apply)	D CODES	2= Material (mass 3= EPA approved	1= Stack test result 2= Material (mass) balance 3= EPA approved information (AP-42, CTG, etc.) 4= Other (specify in Table below)		
CALCULATION REJECT (List all that apply)	TON CODES	2= Wrong emissio 3= Control efficien	1= Calculation error 2= Wrong emission factor(s) used 3= Control efficiency(ies) not accepted 4= Other (Specify in Table below)		
EMISSION SOURCE ID NUMBER	CALCULATION METHOD CODE	ACCEPT OR REJECT?	CALCULATION REJECTION CODE	MCAQ CALCULATIONS ATTACHED?	
All	1, 2, 3	Accept		No	
Actual emissions in Section D are based upon annual emissions submitted by the facility for calendar year 2019 as entered into MCAQ's EPIC database.					

SECTION E				
SUPPORTING DOCUMENTATION				
(Provide brief description of any ATTACHMENTS)				

1. Application dated May 18, 2020

**MCAQ Application Review Checklist** 

MCAQ Application Review Checklist						
Item/Step			√/Date Sent/NA	Date Received	Comment	
1	Application Received email sent      also remember to send the following emails:         Start of Public Comment         Permit Issued w/survey		<b>√</b> /			
2	Additional Info Before 45 Days letter		NA			
3	Additional Info After 45 Days letter		NA		Number of Days Between:	
4	Existing Unpermitted Facility 1 <sup>st</sup> Letter w/Invoice		NA		Enter fee payment in EPIC	
5	EPIC	Update Facility/Contact Info per A1 Form Enter Blank Milestones:  Commencement of Operation  Annual Report Received if new facility  Point/Process Info if new point/process	Up-to-date NA			
6	Update Facility Catalogue Info as needed at: <u>G:\AQsource\PLANTS\Facility</u> <u>Catalog .xlsx</u>		Up-to-date			
7	New Facility	Create Share Folder w/subfolders for New Premise Number on LAN Notify IT of New Premise Number	NA NA			
8	New SM/TV Facility	Notify ICIS Air Data Steward	NA			
9	New 112r Facility	Notify RMP Sr. Specialist if facility is subject to 112r per A1 form	NA			